

## ABSTRACT

An antenna (100) includes a core (101) formed with ferrite and an antenna copper plate (102) arranged on periphery of the core (101) so that the antenna copper plate wraps nearly one around the core (101). A length L1 of the core (101)=a length L2 of the antenna copper plate (102), and a width W1 of the core (101)=a width W2 of the antenna copper plate (102). A height H1 of the core (101) and a height H2 of the antenna copper plate (102) are set to be equal or one to be larger (or smaller) than the other according to a necessary receiving characteristic.